

Fig. 7 is an explanatory diagram concerning an example of a method of determining a time constant and intensity of afterglow implemented in the second embodiment of the present invention (second embodiment);

4-8-09 5 Figs. 8A to <sup>8C</sup>~~8B~~ are explanatory diagrams concerning a step response characteristic to be measured and stored and an impulse response characteristic to be estimated which are employed in the method mentioned in Fig. 7 (second embodiment); and

Fig. 9A shows a tomographic image produced without afterglow correction and Fig. 9B shows a tomographic image produced with afterglow correction.

#### Best Mode for Carrying out the Invention

Referring to the drawings, embodiments of the present invention will be described below.

##### (First Embodiment)

Referring to Fig. 1 to Fig. 5, the first embodiment of the present invention will be described below.

Fig. 2 shows an embodiment of an X-ray CT scanner in accordance with the present invention including an afterglow correction means. Fig. 3 is an explanatory diagram showing an example of the configuration of an X-ray detector included in the X-ray CT scanner shown in Fig. 2. Fig. 4 is an explanatory diagram showing an example of the configuration of a central processor included in the X-ray CT scanner shown in Fig. 2.